

5. UNITED STATES WEATHER BUREAU. Snow and ice bulletin. Published weekly, December to March.
6. UNITED STATES WEATHER BUREAU. National weather and crop bulletin. Published weekly, April to September, and monthly, October to March.
7. UNITED STATES WEATHER BUREAU. MONTHLY WEATHER REVIEW: Sections III, forecasts and warnings, with accompanying charts, and VII, weather of the month, with accompanying tables and charts.
8. METEOROLOGICAL SERVICE OF CANADA, Sir Frederick Stewart, F. R. S. C., Director: Monthly Record of Meteorological Observations.

**EFFECTS OF COLD WEATHER, WINTER OF 1917-18, ON
VEGETATION.**

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The unusually persistent cold weather during the months of December, 1917, and January, 1918, did not result in serious damage to the winter grains, fruit, and truck crops. In much of the Great Plains, the upper Mississippi Valley and the Lake region, there was some deterioration in the condition of winter wheat at the beginning of April, 1918, as compared with its condition on entering the winter, but in the first-named district much of the harm resulted, indirectly at least, from the poor condition of the plants due to the dry fall. In the

middle Mississippi and Ohio Valleys and in most central and northern districts farther east, wheat was unusually well protected by a heavy snow cover during the prevalence of the cold weather, and by the first of April substantial improvement was reported in the condition of the crop over that at the beginning of the winter. On the whole, the unusually favorable spring in the principal wheat belt more than offset any damage that wheat may have sustained from winter killing.

Winter oats and truck crops in the southern States were much damaged, however, by the unusually severe winter weather, and considerable loss in stored vegetables was sustained where proper precautions had not been taken. There was also quite serious loss of unprotected cattle in some sections, particularly in Texas, where stock was in a weakened condition from lack of sufficient feed due to the protracted drought.

Except for winter killing of peach buds and some young peach trees from Arkansas and Missouri northeastward to New England and considerable damage to other fruit about the Lakes, fruit suffered little damage from the cold. Apples, citrus fruit, and cranberries were not unfavorably affected generally, except for some winter killing of cranberries in dry bogs of the Cape Cod district.